UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

DATE SEP 14 1981

SUBJECT: ASARCO Inc., East Helena Plant, EPA ID# MTD 006230346
RCRA Inspection on August 4, 1981 at 1:15 pm.

FROM Jim Dunn
Environmental Engineer 8MO

TO FILES

INSPECTION TEAM: Jim Dunn & Lee Shanklin, 8-EPA-MO
Roger Thorvilson & Vic Anderson, MDHES-SWMB

FACILITY CONTACT: Mr. Jim Sieverson, Industrial Hygenist
Phone: (406) 227-5311

BACKGROUND: The facility is primarily a lead and zinc smelter operation with some precious metals smelting on an ad-hoc basis. Metals concentrates are received in bulk shipments and plastic-lined drums and are stored in piles for metallurgical analyses prior to blending and smelting. Lead bullion is produced, and slag from lead smelting process is further smelted for zinc and precious metals recovery. Slag from this process is stockpiled on site, and is reportedly 95-99 percent ferrous-silicon. Leach tests (EP Toxicity) performed by ASARCO reportedly indicate that this solid waste does not fail this characteristic test.

Wastes indigenous to mineral mining, beneficiation, and processing are currently exempt from EPA regulation as hazardous wastes pending completion of a Congressionally-mandated study of these wastes. This exemption is specifically included in Section 3001(b)(3)(A)(ii) of the Solid Waste Disposal Act Amendments of 1980 (P.L. 96-482). Solid wastes not indigenous to these operations may still fall under RCRA hazardous waste controls if they are specifically listed (e.g. waste solvents) or fail one of the four characteristic tests (e.g. ignitibility). ASARCO had indicated in a May 1, 1981 annual report to MDHES and in a revised Part A permit application (submitted to EPA on May 13, 1981) that the facility produces from 960 to 4429 pounds/year of solvents, lab wastes, and waste asbestos (the last not currently regulated under RCRA). Additionally, the company reports that the rate of waste generation is less than the 1000 Kg. (2200 lb.) per month which would qualify the plant as a generator of hazardous waste, but could classify them as a small-quantity generator as specified in 40 CFR 261.5(a) & (b). To fully qualify for this small quantity exclusion, the facility disposing of such wastes on site must do so in a State-regulated solid waste management facility or fully-permitted hazardous waste disposal facility (40 CFR 261.5(d)(1)-(3)).

From information contained in initial and updated Part A permit applications and based on information obtained during the site visit, ASARCO states that from time-to-time they may receive shipments of metal-bearing materials which would fit the definition of "HAZARDOUS WASTE" and which may be manifested to the plant as such. These materials are generally stored on site for a short time in the incoming concentrates storage area and processed through the plant identically as other concentrates would be processed. Dust control is exercised on these concentrate piles, paving projects are currently underway to seal the surface of this storage area, and stormwater runoff to the area is diverted away from active operations. ASARCO has indicated that the company considers this material to be feed material to its facility since it is being processed for its commercial value. This material is not regulated as a hazardous waste by virtue of the recycling special requirements of 40 CFR 261.6(a) unless the material is a sludge or a listed waste material. At this time, ASARCO has not received and processed any of this material.

Solid waste from the acid plant wastewater treatment plant is produced as a result of soda ash neutralization and settling of this wastewater. This sludge is produced in small quantities, is not considered a hazardous waste, is air dried on concrete-bottomed drying beds, and is charged into the lead furnaces for disposal.

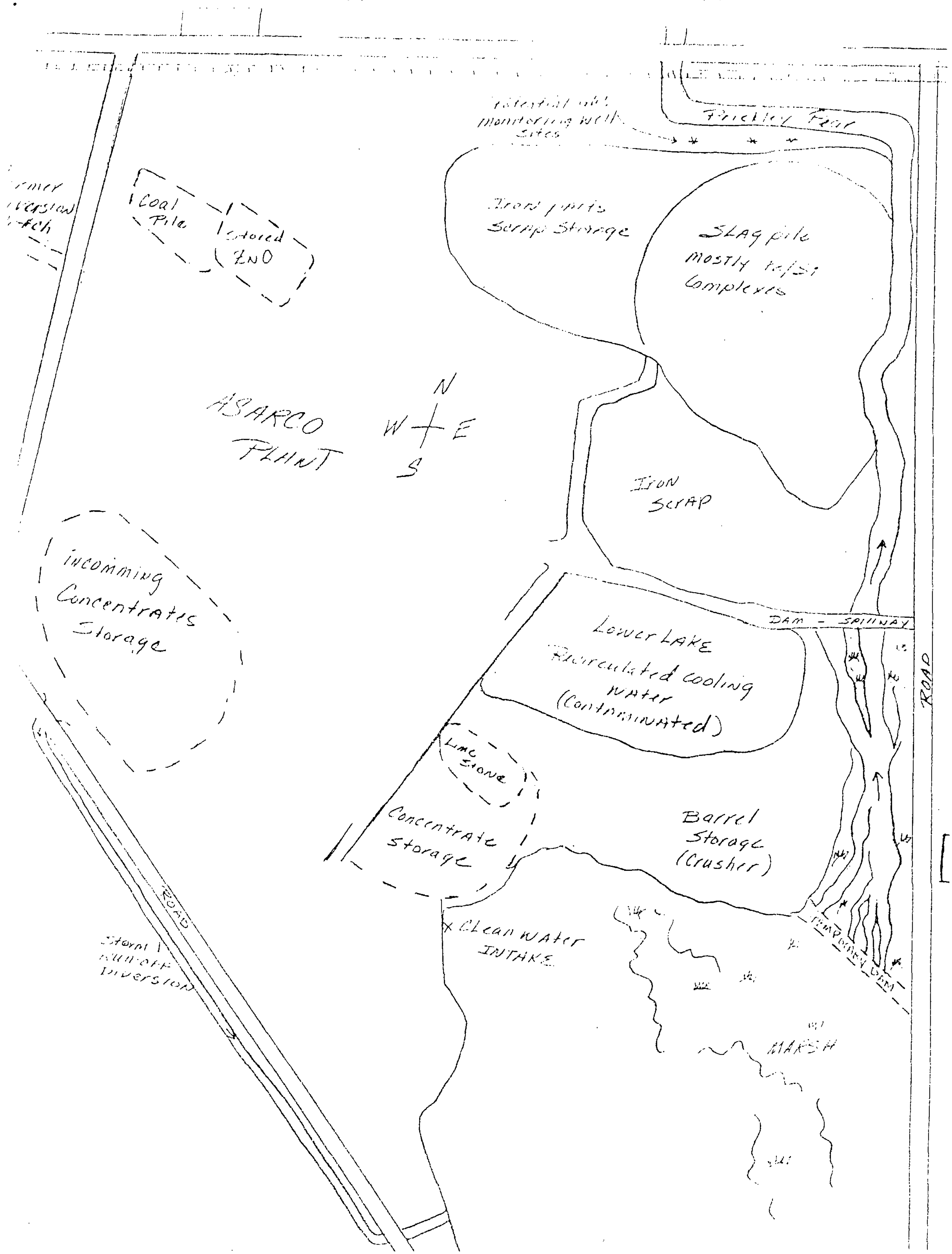
Process wastewater from the smelting operation is cycled through a closed-loop system with apparently no discharge. A holding basin (the South Pond) is located on the banks of Prickly Pear Creek. This pond receives process waters, heavy material settles out, and supernatant is pumped back into the process. Makeup water is obtained from the creek at a rate of approximately 1500 gpm to supplement water lost in the smelting process. The approximate volume of the basin is 4 million gallons, and solids settling in the basin have apparently sealed the basin from leaking, as the impoundment is not fitted with a liner.

Leaching of contaminants from the slag pile into Prickly Pear Creek has not been detected. According to Mr. Sieverson during the site visit, Montana Water Quality Bureau and Lewis & Clark County analyses are conducted once per month, and apparently the creek remains within EPA Primary Drinking Water Standards Limitations. No groundwater wells presently exist down gradient of the facility, however, ASARCO analyses of well water in East Helena reportedly revealed no evidence of contamination by metals present at the facility site.

Drums utilized to transport concentrates to the smelter are crushed on site and disposed of with other scrap metal in the blast furnaces. Typical blast furnace temperatures (1500-2200^{o}F) require quantities of combustibles and scrap metal as a startup material. ASARCO utilized the furnaces as disposal means for the small quantity hazardous wastes generated on site. The company does not plan to utilize these furnaces as commercial hazardous waste disposal facilities. The company notified EPA as a UIC facility on the basis of one sanitary wastewater septic tank located in the zinc plant. The inspection concluded with a walking tour of the facility and the inspection team left the property at 3:30 pm.

Attachment

cc: Roger Thorvilson, MDHES-SWMB
Larry Wapensky, 8AH-WM, ATTN: Carol Lee
Lee Shanklin, 8-EPA-MO


Prickley Pear
Coal Pile
Stored ZnO
Iron parts Scrap Storage
SLAG pile mostly Fe/Si Complexes
ASARCO PLANT
N
W
E
S
Iron Scrap
incomming Concentrates Storage
DAM - SPILLWAY
Lower LAKE Recirculated cooling water (Contaminated)
ROAD
Lime Stone
Concentrate storage
Barrel Storage (Crusher)
Clean water INTAKE
Storm Runoff Diversion
ROAD
MARSH